IN THE CLAIMS:

1. (Currently Amended) A dominant ~~In a region dominant color based on various region dominant color extraction methods, a dominant~~ color setting method which ~~is characterized in that~~ targets a content-based retrieval for color in visual data, comprising:

generating a region dominant color descriptor ~~is expressed by~~ incorporating information indicating a number of dominant colors with respect to a ~~certain~~ region of interest in visual data, at least one ~~an~~ expressed dominant color, a frequency with which ~~that~~ the dominant color appears in the region, and an accuracy of a color value representing the region.

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2. (Currently Amended) The method of claim 1, wherein the ~~a two~~ region dominant color descriptor is a first dominant color descriptor formed based on one dominant color extraction method, ~~descriptors are compared by~~ and wherein said method further comprises:

forming a second dominant color descriptor by transforming data formed by another dominant color descriptor extraction method into a certain inherent data format in a different system based on a formalized description with respect to the ~~an~~ extraction method of the region dominant color descriptor; and

comparing the first dominant color descriptor to the second dominant color descriptor.

3. (Original) The method of claim 1, wherein an expression accuracy of the dominant colors extracted by a certain method is obtained in accordance with a degree of confidence of the region dominant color descriptor.

4. (Currently Amended) The method of claim 1, wherein said accuracy information includes or corresponds to ~~the~~ confidence information ~~is~~ determined based on a maximum color variation value in which the color which is recognized in accordance with an increase/decrease of the color expressed by a certain value is the same color.

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5. (Currently Amended) The method of claim 1, wherein when a certain color is mapped as a dominant color in an image region, color variance which is a difference between an accurate value of the color and the dominant color value is adapted to ~~the~~ confidence information included in or corresponding to said accuracy information.

6. (Currently Amended) The method of claim 1, wherein a coherency value which represents a concentration degree of the pixels of a color with respect to the dominant color is adapted to ~~the~~ confidence information included in or corresponding to said accuracy information.

7. (Currently Amended) The method of claim 1, wherein a size of the region that a dominant color covers in the image region is adapted to ~~the~~ confidence information included in or corresponding to said accuracy information.

8. (Currently Amended) The method of claim 1, wherein a position of each color pixel in the image region is adapted to ~~the~~ confidence included in or corresponding to said accuracy information.

9. (Currently Amended) The method of claim 1, wherein said accuracy information includes or corresponds to a ~~the~~ confidence measure ~~is~~ expressed by a vector value based on a normalized coherence average value, an average value with respect to a difference when a certain color is recognized as a dominant color, a value obtained by summing the size that the dominant color covers in all image regions, and an average value in a region of each color pixel.

10. (Currently Amended) The method of claim 1, wherein an interoperability between different feature extraction methods is implemented by comparing ~~each~~ at least one confidence value expressed based on the region dominant color descriptor obtained by different region dominant color extraction methods with a region dominant color value.

11. (Currently Amended) The method of claim 1, wherein ~~as an~~ said accuracy information includes or corresponds to ~~of color value,~~ a confidence measure ~~is~~ expressed with respect to each dominant color of the region dominant color ~~descriptors~~ descriptor.

12. (Currently Amended) The method of claim 1, wherein the accuracy information includes or corresponds to a ~~the~~ confidence measure per each dominant color ~~is~~ expressed by a vector that includes ~~consists of the~~ elements or a subset of the elements of spatial variance, color variance, the size of a region that the dominant color covers and a ~~the~~ position of ~~each~~ dominant color pixels in the region.

13. (Currently Amended) A ~~data structure for describing a extraction method for region dominant color description, comprising:~~ method for generating a dominant color descriptor of visual data, which formalize an extraction method for a region dominant color and provides an interoperability between different retrieval systems, incorporating:

an extraction method description for extracting a region dominant color;

a pre-processing description for describing a filtering of a corresponding region when obtaining the region dominant color value;

a frequency condition description for describing a condition of the frequency of a dominant color obtained by forming a histogram;

a color space description for describing a descriptor with respect to a color space used for indicating h region dominant color;

a color sub-space descriptor for defining that the region dominant color is expressed in the sub-space of the thusly defined color space;

a quantization description for describing a quantization method of the color space; and

~~a shaping operation by defining~~ a color cluster description which describes whether a region color is clustered again.

14. (Currently Amended) The ~~data structure~~ method of claim 13, wherein said formalized data structure is described in a header of a memory and is re-defined whenever a corresponding item is changed.

15. (Currently Amended) The ~~data structure~~ method of claim 13, wherein a data which is obtained by a different dominant color descriptor extraction method in a different system based on the formalized data with respect to an extraction method of the region dominant color descriptor is transformed into an inherent data format for thereby comparing and searching two region dominant color descriptors.

16. (Currently Amended) The ~~data structure~~ method of claim 13, wherein in the pre-processing description, the region dominant color value is obtained based on a filter adapted to the region, a filter size defining that the filter is adapted to the image entire region, and a sliding method with respect to a filter window.

17. (Currently Amended) The ~~data structure~~ method of claim 13, wherein in said frequency condition description, the histogram is obtained and is arranged in accordance with a frequency of a color corresponding to the histogram, so that the values until a threshold values is set by the size is designated as a dominant color.

18. (Currently Amended) The ~~data structure~~ method of claim 13, wherein the number of color channels and a transformation method are defined for expressing a reference color space and a transformation relationship from the reference color space in the color space description.

19. (Currently Amended) The ~~data structure~~ method of claim 13, wherein in the description of the color sub-space, the number of color channels, the color channel and the ranges and each channel are defined when the region dominant color is expressed in a sub-space of the color space.

20. (Currently Amended) The ~~data structure~~ method of claim 13, wherein the number of the quantized channels of the color space, the quantized channels, and the number of the quantization levels of each channel are defined in the quantization description.

21. (Currently Amended) The ~~data structure~~ method of claim 13, wherein in the color clustering description, when the color is clustered again, the level when the number of the clustering is varied in the region, the number of clusters, and the clustered color channels are defined.

22. (Original) A confidence measure extraction method of a video region dominant color, comprising the steps of:

determining a count sum of a confidence and pixels as an initial value;

obtaining a value obtained by counting a color pixel corresponding to each region dominant color with respect to all region dominant colors and a coherence corresponding to a value obtained by each region dominant color;

multiplying the coherence value and the color pixel, adding a confidence to the multiplied value and obtaining a confidence with respect to the region dominant color; and

dividing the thusly obtained confidence value by a region size and extracting a confidence with respect to the image region.

23. (Original) A video region dominant color setting method, comprising the steps of:

extracting a region from a visual data;

setting a dominant color descriptor with respect to a certain region; and

storing a region descriptor with respect to the region dominant color descriptor and a set dominant color.

24. (Original) A video region dominant color descriptor search method, comprising the steps of:

selecting a user's region;

extracting a corresponding region descriptor;

extracting a dominant color with respect to a corresponding region; and

comparing all stored other region descriptors with a dominant color.

25. (Currently Amended) An interoperability maintaining method between different retrieval systems, comprising:

transforming, comparing and searching a sharing data format using a region descriptor of each system, a region dominant color descriptor of each system and a region dominant color descriptor extraction method description data of each system.

26. (Currently Amended) A method for describing color information of a region ~~with~~ of interest, incorporating information indicating a number of dominant colors, a frequency that the dominant color appears in the region, and a confidence measure of the color of the region, which indicates how much the dominant colors are reliable in the given region.

27. (New) A method for describing dominant color of visual data, comprising:

selecting a region of interest from a media object; and

generating a dominant color descriptor for the region, said descriptor including:

a) information indicative of a number of colors (N) selected for extraction from the region, where $N \geq 1$;

b) information indicative of color values determined for respective ones of the N colors;

c) information indicative of frequencies with which respective ones of the N colors appear in the region; and

d) information indicative of an accuracy of a representative color value for the region, said representative color value determined based on the information in at least one of b) and c).

28. (New) The method of claim 27, wherein the color values in b) are determined based on any one of the following extraction methods:

an average-color method;

a method of expressing only one most frequency appearing color in the region;

a method of expressing more than one most frequently appearing color in the region;

a method of determining which colors appear in the region more than a predetermined percentage of a threshold value; and

a histogram method.

29. (New) The method of claim 27, wherein the information in c) is determined based on pixel counts for respective ones of the N colors.

30. (New) The method of claim 27, wherein the representative color value corresponds to color value in b) when N = 1.

31. (New) The method of claim 27, wherein the color values in b) are defined by at least one of color space information, quantization information, color clustering information, and channel information.

32. (New) The method of claim 27, wherein the information in d) is computed by:

a confidence measure which is determined by a vector value based on a normalized coherency value, an average value with respect to a difference when a certain color is recognized as a dominant color, a value obtained by summing the size that the dominant color covers in all image regions, and an average value in a region of each color pixel.

33. (New) A method for describing dominant color in visual data, comprising:

selecting a region of interest from a media object; and

generating a dominant color descriptor for the region, said descriptor including:

a) information indicative of at least one color selected for the region, and

b) information indicative of accuracy of a color value assigned to the region, said color value based on the information in (a).

34. (New) A computer-readable medium for setting color information for visual data, having stored thereon:

a) information indicative of a number of colors (N) selected for extraction from a region of a media object, where $N \geq 1$;

b) information indicative of color values determined for respective ones of the N colors;

c) information indicative of frequencies with which respective ones of the N colors appear in the region; and

d) information indicative of an accuracy of a representative color value for the region, said representative color value determined based on the information in at least one of b) and c).

35. (New) The medium of claim 34, wherein the representative color value corresponds to color value in b) when N = 1.

36. (New) The medium of claim 34, wherein the color values in b) are defined by at least one of color space information, quantization information, color clustering information, and channel information.

37. (New) The medium of claim 34, wherein the information in d) is computed by:

a confidence measure which is determined by a vector value based on a normalized coherency value, an average value with respect to a difference when a certain color is recognized as a dominant color, a value obtained by summing the size that the dominant color covers in all image regions, and an average value in a region of each color pixel.